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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/849,691	05/04/2001	Alexander Tetelbaum	00-653	8190
24319	7590	06/03/2005	EXAMINER	
LSI LOGIC CORPORATION 1621 BARBER LANE MS: D-106 MILPITAS, CA 95035			STEVENS, THOMAS H	
			ART UNIT	PAPER NUMBER
			2123	

DATE MAILED: 06/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/849,691

Applicant(s)

TETELBAUM, ALEXANDER

Examiner

Thomas H. Stevens

Art Unit

2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 January 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. Claims 1-14 were examined.

***Section I: Response to Applicant's Arguments***

***Drawings***

2. Applicants are thanked for addressing this issue. Objection is withdrawn.

***35 U.S.C. § 101***

3. Applicants are thanked for addressing this issue. Based on applicant's amendment, the rejection is withdrawn.

***35 U.S.C. § 102***

4. Applicants are thanked for addressing this issue. Due to the non-persuasive declaration, the rejection stands.

***37 C.F.R § 1.131***

5. The declaration filed on January 1, 2005 under 37 CFR §1.131 has been considered but ineffective to overcome the Lou et al. reference (09/849,691).

5b. The evidence submitted is insufficient to establish a conception of the invention prior to the effective date of the Lou et al. reference. While conception is the mental part of the inventive act, it must be capable of proof, such as by demonstrative evidence or by a complete disclosure to another. Conception is more than a vague idea of how to solve a problem. The requisite means themselves and their interaction must also be comprehended. See *Mergenthaler v. Scudder*, 1897 C.D. 724, 81 O.G. 1417 (D.C. Cir. 1987). Per MPEP 715.

The essential thing to be shown under 37 CFR 1.131 is priority of invention and this may be done by any satisfactory evidence of the fact. **FACTS, not conclusions, must be alleged.** Evidence in the form of exhibits may accompany the affidavit or declaration. **Each exhibit relied upon should be specifically referred to in the affidavit or declaration, in terms of what it is relied upon to show.**

A general allegation that the invention was completed prior to the date of the reference is not sufficient. Ex parte Saunders, 1883 C.D. 23, 23 O.G. 1224 (Comm'r Pat. 1883). Similarly, a declaration by the inventor to the effect that his or her invention was conceived or reduced to practice prior to the reference date, **without a statement of facts demonstrating the correctness of this conclusion, is insufficient to satisfy 37 CFR 1.131.**

When reviewing a 37 CFR 1.131 affidavit or declaration, the examiner must consider all of the evidence presented in its entirety, including the affidavits or declarations and all accompanying exhibits, records and "notes." **An accompanying exhibit need not support all claimed limitations, provided that any missing limitation is supported by the declaration itself.** Ex parte Ovshinsky, 10 USPQ2d 1075 (Bd. Pat. App. & Inter. 1989).

The affidavit or declaration and exhibits must clearly explain which facts or data applicant is relying on to show completion of his or her invention prior to the particular date. Vague and general statements in broad terms about what the exhibits describe along with a general assertion that the exhibits describe a reduction to practice amounts essentially to mere pleading, unsupported by proof or a showing of facts\* and, thus, does not satisfy the requirements of 37 CFR 1.131(b). In re Borkowski, 505 F.2d 713, 184 USPQ 29 (CCPA 1974). Applicant must give a clear explanation of the exhibits pointing out exactly what facts are established and relied on by applicant. 505 F.2d at 718-19, 184 USPQ at 33. See also In re Harry, 333 F.2d 920, 142 USPQ 164 (CCPA 1964) (Affidavit "asserts that facts exist but does not tell what they are or when they occurred.").

In general, proof of actual reduction to practice requires a showing that the method actually existed and worked for its intended purpose.

The declaration and the accompanying figures do not provided enough evidence to support all the claimed limitations prior to the reference date therefore does not support conception of the claimed invention. For example, there's no chronological series of steps of the process relative to the dates; specifically, a gap of production improvement between August 2000 and October 2000 is unclear. The question arises as to when the "new approach" as stated on page 5, 2nd paragraph, lines 3 and 4 of the FS3.0 was constructed. Additionally, there's no clear detailed explanation of the relationship between the claims the notes in the declaration. The affidavit is not

sufficient for applicant to declare that the invention was conceived prior to the reference date without a statement of facts demonstrating the correctness of this conclusion.

The examiner further noted that applicant has not provided statements of facts demonstrating the invention relative to the claims; however, for example, the affidavit appears to be referring to claims 2 and 3 to figure 3 and claim 1 to figures 2,4,7 and 8, though this is not entirely clear.

5c. Per MPEP 2138.06

**THE ENTIRE PERIOD DURING WHICH DILIGENCE IS REQUIRED MUST BE ACCOUNTED FOR BY EITHER AFFIRMATIVE ACTS OR ACCEPTABLE EXCUSES** An applicant must account for the entire period during which diligence is required. *Gould v. Schawlow*, 363 F.2d 908, 919, 150 USPQ 634, 643 (CCPA 1966) (Merely stating that there were no weeks or months that the invention was not worked on is not enough.); *In re Harry*, 333 F.2d 920, 923, 142 USPQ 164, 166 (CCPA 1964) (statement that the subject matter "was diligently reduced to practice" is not a showing but a mere pleading). A 2-day period lacking activity has been held to be fatal. *In re Mulder*, 716 F.2d 1542, 1545, 219 USPQ 189, 193 (Fed. Cir. 1983) (37 CFR 1.131 issue); *Fitzgerald v. Arbib*, 268 F.2d 763, 766, 122 USPQ 530, 532 (CCPA 1959) (Less than 1 month of inactivity during critical period. Efforts to exploit an invention commercially do not constitute diligence in reducing it to practice. An actual reduction to practice in the case of a design for a three-dimensional article requires that it should be embodied in some structure other than a mere drawing.); *Kendall v. Searles*, 173 F.2d 986, 993, 81 USPQ 363, 369 (CCPA 1949) (Diligence requires that applicants must be specific as to dates and facts.).

The period during which diligence is required must be accounted for by either affirmative acts or acceptable excuses. *Rebstock v. Flouret*, 191 USPQ 342, 345 (Bd. Pat. Inter. 1975); *Rieser v. Williams*, 225 F.2d 419, 423, 118 USPQ 96, 100 (CCPA 1958) (Being last to reduce to practice, party cannot prevail unless he has shown that he was first to conceive and that he exercised reasonable diligence during the critical period from just prior to opponent's entry into the field); *Griffith v. Kanamaru*, 816 F.2d 624, 2 USPQ2d 1361 (Fed. Cir. 1987) (Court generally reviewed cases on excuses for inactivity including vacation extended by ill health and daily job demands, and held lack of university funding and personnel are not acceptable excuses.); *Litchfield v. Eigen*, 535 F.2d 72, 190 USPQ 113 (CCPA 1976) (budgetary limits and availability of animals for testing not sufficiently described); *Morway v. Bondi*, 203 F.2d 741, 749, 97 USPQ 318, 323 (CCPA 1953) (voluntarily laying aside inventive concept in pursuit of other projects is generally not an acceptable excuse although there may be circumstances creating exceptions); *Anderson v. Crowther*, 152 USPQ 504, 512 (Bd. Pat. Inter. 1965) (preparation of routine periodic reports covering all accomplishments of the laboratory insufficient to show diligence); *Wu v. Jucker*, 167 USPQ 467, 472-73 (Bd. Pat. Inter. 1968) (applicant improperly allowed test data sheets to accumulate to a sufficient amount to justify interfering with equipment then in use on another project); *Tucker v. Natta*, 171 USPQ

494,498 (Bd. Pat. Inter. 1971) ("activity directed toward the reduction to practice of a genus does not establish, prima facie, diligence toward the reduction to practice of a species embraced by said genus"); *Justus v. Appenzeller*, 177 USPQ 332, 340-1 (Bd. Pat. Inter. 1971) (Although it is possible that patentee could have reduced the invention to practice in a shorter time by relying on stock items rather than by designing a particular piece of hardware, patentee exercised reasonable diligence to secure the required hardware to actually reduce the invention to practice. "[I]n deciding the question of diligence it is immaterial that the inventor may not have taken the expeditious course....").

The diligence of attorney in preparing and filing patent application inures to the benefit of the inventor. Conception was established at least as early as the date a draft of a patent application was finished by a patent attorney on behalf of the inventor. Conception is less a matter of signature than it is one of disclosure. Attorney does not prepare a patent application on behalf of particular named persons, but on behalf of the true inventive entity. **Six days to execute and file application is acceptable.** *Haskell v. Coleburne*, 671 F.2d 1362, 213 USPQ 192, 195 (CCPA 1982). See also *Bey v. Kollonitsch*, 866 F.2d 1024, 231 USPQ 967 (Fed. Cir. 1986) (Reasonable diligence is all that is required of the attorney. **Reasonable diligence is established if attorney worked reasonably hard on the application during the continuous critical period. If the attorney has a reasonable backlog of unrelated cases which he takes up in chronological order and carries out expeditiously, that is sufficient. Work on a related case(s) that contributed substantially to the ultimate preparation of an application can be credited as diligence.**).

The evidence submitted is insufficient to establish diligence from the date prior to the effective date relative to the prior art by Lou et al. (4/1-4/00) to the U.S. filing date 05/04/01 because there are several periods lacking between 03/00-05/00 and 08/01/00 and 10/10/00, with little explanation of facts demonstrating correctness (**a 2-month period lacking activity has been held to be fatal**). There is no statement by the attorney declaring "any period between August 1,2000 and October 10, 2000 during which the invention was not worked on; same holds true between March 2000 and May 2000.

## ***Section II: Final Rejection (2<sup>nd</sup> Office Action)***

### ***Claim Rejections - 35 U.S.C. § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless -

(a) the invention was own or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

7. Claims 1-14 are rejected under 35 U.S.C. 102(a) as being anticipated by Lou et al (Lou et al, "Estimating Routing Congestion Using Probabilistic Analysis", Proceedings of the 2001 International Symposium on Physical Design, pages 112 - 117, April 1-4, 2001), herein referred to as Lou. As to Claim 1, Lou teaches: a method of calculating a probability that a wire path in a predetermined direction will be contained in a given area within a datapath, said method comprising: dividing the datapath into pre-determined areas to define said given area (Figure 1), calculating the mathematical expectations of full segments in the pre-determined direction for said given area in said datapath (section H.2.1); calculating the mathematical expectations of partial in the pre-determined direction for said given area in said datapath (section II.2.1); summing the mathematical expectations which have been calculated to determine the probability that a wire path in the pre-determined direction will be contained in the given area within the datapath (section 11.2.1, section 11.2.3, Definition 5).
8. As to Claim 2, Lou teaches: a method as recited in claim 1, further comprising calculating the probability for each connection in the datapath (section 11.2.3, Definition 5).
9. As to Claim 3, Lou teaches: a method as recited in claim 2, further comprising summing the probabilities to calculate the whole mathematical expectation of

segments in the predetermined direction in the given area for all the connections in the datapath (Definition 5, Theorem 3 and cases a-e).

10. As to Claim 4, Lou teaches: a method as recited in claim 1, further comprising calculating the mathematical expectations of full horizontal segments for said given area in said datapath (section H.2.1, Definition 5, Theorem 3, case a-e).
11. As to Claim 5, Lou teaches: a method as recited in claim 1, further comprising calculating the mathematical expectations of partial horizontal segments for said given area in said datapath (section 11.2.1, Definition 5, Theorem 3, case a-e).
12. As to Claim 6, Lou teaches: a method as recited in claim 1, further comprising calculating the mathematical expectations of full horizontal segments for said given area in said datapath, and calculating the mathematical expectations of partial horizontal segments for said given area in said datapath (section 11.2.1, Definition 5, Theorem 3, case a-e).
13. As to Claim 7, Lou teaches: a method as recited in claim 6, further comprising summing the mathematical expectations which have been calculated to determine the probability that a wire path in the horizontal direction will be contained in the given area within the datapath (section 11.2.1, Definition 5, Theorem 3, case a-e).



14. As to Claim 8, Lou teaches: a method as recited in claim 1, further comprising calculating the mathematical expectations of full vertical segments for said given area in said datapath (section H.2.1, Definition 5, Theorem 3, case a-e).
15. As to Claim 9, Lou teaches: a method as recited in claim 1, further comprising calculating the mathematical expectations of partial vertical segments for said given area in said datapath (section H.2.1, Definition 5, Theorem 3, case a-e).
16. As to Claim 10, Lou teaches: a method as recited in claim 1, further comprising calculating the mathematical expectations of full vertical segments for said given area in said datapath, and calculating the mathematical expectation of partial vertical segments for said given area in said datapath (section H.2.1, Definition 5, Theorem 3, case a-e).
17. As to Claim 11, Lou teaches: a method as recited in claim 10, further comprising summing the mathematical expectations which have been calculated to determine the probability that a wire path in the vertical direction will be contained in the given area within the datapath (section H.2.1, Definition 5, Theorem 3, case a-e).
18. As to Claim 12, Lou teaches: a method as recited in claim 1, further comprising calculating the mathematical expectations of full horizontal segments for said given area in said datapath and calculating the mathematical expectations of full

vertical segments for said given area in said datapath (section 11.2.1, Definition 5, Theorem 3, case a-e).

19. As to Claim 13, Lou teaches: a method as recited in claim 12, further comprising calculating the mathematical expectations of partial horizontal segments for said given area in said datapath and calculating the mathematical expectations of partial vertical segments for said given area in said datapath (section H.2.1, Definition 5, Theorem 3, case a-e).
20. As to Claim 14, Lou teaches: a method as recited in claim 1, further comprising calculating the mathematical expectations of full horizontal segments for said given area in said datapath, calculating the mathematical expectations of partial horizontal segments for said given area in said datapath, summing the mathematical expectations relating to horizontal segments which have been calculated to determine the probability that a wire path in the horizontal direction will be contained in the given area within the datapath, calculating the mathematical expectations of full vertical segments for said given area in said datapath, calculating the mathematical expectations of partial vertical segments for said given area in said datapath, and summing the mathematical expectations relating to vertical segments which have been calculated to determine the probability that a wire path in the vertical direction will be contained in the given area within the datapath (section 11.2.1, Definition 5, Theorem 3, case a-e).

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***Conclusion***

21. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

***Correspondence Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mr. Tom Stevens whose telephone number is 571-272-3715, Monday-Friday (8:00 am- 4:30 pm) or contact Supervisor Mr. Kevin Teska at (571) 272-3716. Fax number is 571-273-3715.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100.

May 10, 2005

THS

*C. Stevens*  
William Thomas  
TC 2100  
Art 2123  
Primary Examiner